



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/804,190

03/13/2001

Masuyuki Ohta

501.37242CX2

9907

20457

7590

01/30/2003

ANTONELLI TERRY STOUT AND KRAUS  
SUITE 1800  
1300 NORTH SEVENTEENTH STREET  
ARLINGTON, VA 22209

EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/804,190

Applicant(s)  
Ohta et al.

Examiner  
Dung Nguyen

Art Unit  
2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jul 24, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 6, and 8-25 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, and 8-25 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit: 2871

***DETAILED ACTION***

Applicant's amendment dated 07/24/2002 has been received and entered.

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-2, 4, 6, 8 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is confusing and unclear whether the claimed "first and second alignment films" (line 14) is the same one of lines 10 and 12. For the purpose of examination, it is assumed that the same elements.

Regarding claim 13, it is confusing and unclear whether claimed "the thorough hole" (line 2) is the same one of based claim 12. Correction to the language is suggested to clarify the claimed subject matter.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Art Unit: 2871

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b).

Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 9 and 12-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirakata et al., US Patent No. 5,977,562.

Regarding claims 9 and 13, Hirakata et al. disclose an active matrix liquid crystal display (LCD) device (figures 1-2) comprising:

- . a pair of substrates (201 and 211);
- . a liquid crystal layer (213);
- . a plurality image signal lines (102) and scan signal lines (101) forming a pixel region as claimed (fig. 1);
- . a counter signal line (104);
- . a first alignment film (207);
- . a second alignment film (212);
- . a pixel electrode (103) connected to the active device (100);

Art Unit: 2871

. a counter electrode (105); wherein, the pixel electrode and the counter electrode forming on a same insulating layer (205) as claimed.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirakata et al., US Patent No. 5,977,562.

Regarding claims 15-25, Hirakata et al. disclose the claimed invention as described above except for the light shielding electrode forming underneath a gate electrode (i.e., between counter electrodes). One of ordinary skill in the art would have realized the desire to form a light shield conductor around pixel regions (i.e., between counter electrodes) in an LCD device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the Hirakata et al. device having a light shield conductor underneath gate electrode in order to protect an active device (e.g., TFT) and light leaking through a display device.

7. Claims 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirakata et al., US Patent No. 5,977,562, in view of Raynes, US Patent No. 4,084,884

Regarding claims 1, 2 and 4, Hirakata et al. disclose the claimed invention as described above except for rubbing directions of the first and second alignment films are substantially

Art Unit: 2871

a counter electrode (105); wherein, the pixel electrode and the counter electrode forming on a same insulating layer (205) as claimed.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirakata et al., US Patent No. 5,977,562.

Regarding claims 15-25, Hirakata et al. disclose the claimed invention as described above except for the light shielding electrode forming underneath a gate electrode (i.e, between counter electrodes). One of ordinary skill in the art would have realized the desire to form a light shield conductor around pixel regions (i.e., between counter electrodes) in an LCD device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the Hirakata et al. device having a light shield conductor underneath gate electrode in order to protect an active device (e.g, TFT) and light leaking through a display device.

7. Claims 1, 2, 4, 6, 8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirakata et al., US Patent No. 5,977,562, in view of Raynes, US Patent No. 4,084,884

Regarding claims 1, 2 and 4, Hirakata et al. disclose the claimed invention as described above except for rubbing directions of the first and second alignment films are substantially

Art Unit: 2871

parallel to each other. Raynes do disclose that the arrangement of parallel directions can be formed in an LCD device. Therefore, it would have been obvious to one skilled in the art to modify the Hirakata et al. alignment films having rubbing directions being parallel to each other since it is a conventional practice in an LCD art to align molecules of an LCD layer.

Regarding claims 6, 8 and 10-12, although Hirakata et al. do not disclose that the pixel electrode and/or the counter electrode are/is a transparent electrode, it would have been obvious to one skilled in the art to form a transparent electrode in the Hirakata et al device because it is well known in the art in order to obtain a transparent type LCD device.

***Allowable Subject Matter***

8. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after


Art Unit: 2871

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 746-7730.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN  
01/27/2003

  
SEARCHED  
SERIALIZED  
INDEXED  
FILED  
JAN 27 2003  
FBI - NEW YORK